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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,453	07/16/2003	Makoto Taniguchi	116602	7702

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EXAMINER

GONZALEZ, JULIO C

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 01/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/619,453

Applicant(s)

TANIGUCHI, MAKOTO

Examiner

Julio C. Gonzalez

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,11,12 and 18 is/are rejected.
- 7) ☒ Claim(s) 3-10 and 13-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 11, 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Nowakowski (US 4,516,066) in view of Takahashi et al (US 6,664,767).

Nowakowski discloses a control apparatus for a vehicle (column 1, line 2) having a generator (column 1, line 58) with a stator winding 12, a field winding 14 and being driven by an engine (column 1, line 63). Also, it is disclosed that there is a switching element 44 configured to electrically connect and disconnect a current path between the field winding 14 and a power supply (storage element) (column 3, lines 13, 14; column 2, lines 50-55, 58, 59). Moreover, a storage element 30 is disclosed and a regeneration element 76, 78, 80, 82, 32 (see figure of Nowakowski) configured to provide the storage element 30 (power supply) with current flowing through the field winding when the switching element 44 is turned off (column 3, lines 25 – 28, 37 – 40; column 3, lines 28 – 35).

However, Nowakowski does not disclose explicitly that a power supply supplies current to excite a field winding.

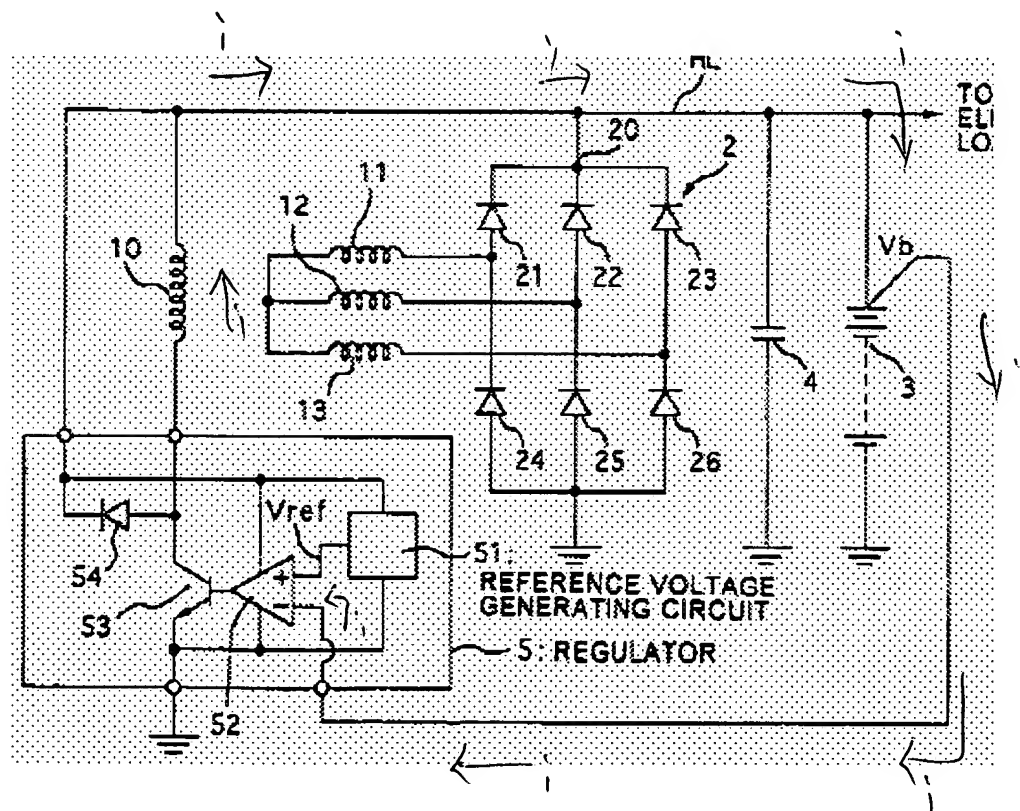
On the other hand, Takahashi et al discloses for the purpose of detecting self-excitation accurately, a generator 4, field winding 6 being connected to single power supply means 3, which is chargeable (column 5, lines 42-45) and a switching element 27, which is turned on/off and provide power to the field winding/battery 3 (column 3, lines 65-67; column 4, lines 28-29; see also figures 1 & 5).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design a control apparatus for a vehicle as disclosed by Nowakowski and to have a power supply connected to an output terminal for the purpose of detecting self-excitation accurately as disclosed by Takahashi et al.

3. Claims 2, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nowakowski and Takahashi et al as applied to claim 1 above, and further in view of Kusase et al (US 5,780,996).

The combined control apparatus discloses all of the elements above. However, the combined apparatus does not disclose that a switching element is

On the other hand, Kusase et al teaches for the purpose of increasing the efficiency of alternators that it is known to have switches 7, 53, between a field winding 10 and power supply 3 (storage element) and being capable of having the same current flowing direction (see figure 4).



It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined control apparatus for a vehicle as

disclosed above and to have the same current flow through the field winding from a power supply to a storage element (power supply) for the purpose of increasing the efficiency of alternators as disclosed by Kusase et al.

Allowable Subject Matter

4. Claims 3-10, 13-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

5. Applicant's arguments with respect to claims 1, 2, 11, 12, 18 have been considered but are moot in view of the new ground(s) of rejection.

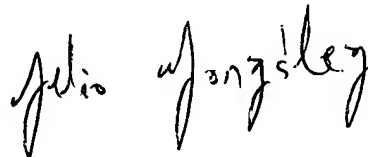
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julio C. Gonzalez whose telephone number is 571-272-2024. The examiner can normally be reached on M-F (8AM-5PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax

phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Julio C. Gonzalez". The signature is written in a cursive, flowing style.

Julio C. Gonzalez
Examiner
Art Unit 2834

Jcg

January 24, 2006